REMARKS

Applicants respectfully request reconsideration of the present application in view of this response. Claims 1-14 and 16-24 are current pending, claim 24 has been added, and claims 1, 18, 21, and 24 are independent claims.

ENTRY OF AMENDMENT AFTER FINAL

Applicants respectfully request entry of this Amendment after final in that new claim 24 does not raise any new issues requiring further consideration or search. For example, the limitations presented in new claim 24 are somewhat similar to those presented in claims 1 and 10.

PRIOR ART REJECTIONS

Claim Rejections under 35 U.S.C. §103

Claims 1-5, 14, and 16-23 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bruckman (U.S. Patent Publication No. 2002/0051466), in view of Applicants' Admitted Prior Art (AAPA), and Tiedemann, Jr., et al. (U.S. Patent No. 5,914,950). Applicants respectfully traverse this rejection.

Limitations of Claim 1 are Lacking

On page 5 of the outstanding Office Action, the Examiner submits that Bruckman allegedly teaches channel coding packets, puncturing, and/or

repeating channel coded packets, as set forth in claim 1. However, Applicants respectfully disagree with the Examiner's conclusion.

As shown in FIG. 1 (of Bruckman), a transmitter includes packet sources 26, which may generate streams of data packets for transmission over channel 25. The dynamic packet fragmenter 28 determines fragment sizes into which packets are to be divided. When an input packet from the source 26 exceeds the determined fragment size, fragmenter 28 divides the packet for transmission into multiple fragments. The sizes of the fragments are determined based on a <u>data transmission rate</u> over channel 25 by a transmitter front end 30. The fragmenter calculates <u>a fragment length</u> for each value of the actual channel data rate based on <u>overhead</u> and <u>maximum permitted delay</u>.

However, Applicants respectfully submit that Bruckman fails to teach or suggest at least "puncturing and/or repeating channel coded packets" to produce a first subpacket based on a "size of the encoder packet," as set forth in claim 1, for example. Instead, at most, Bruckman arguably discloses the fragmenting (dividing) of packets into pieces based on a transmission rate over a channel 25, and further the optimal fragment length is based on considerations of overhead and maximum permitted delay.

Furthermore, in contrast to the Examiner's position, the actual <u>size of the datagram</u> received at the transmitter front end 30 merely <u>triggers the fragmenting</u> of a received datagram and is <u>not</u> used in determining a size of the packet fragments. In other words, when an input packet from the sources 26 <u>exceeds a determined fragment size</u>, fragmenter 28 divides the packet for

transmission into multiple fragments (see paragraph 26, lines 9-11), however, the input packet size is <u>not</u> used in determining the size of the packet fragments.

On page 3 of the outstanding Office Action, the Examiner recognizes that Bruckman is silent with regard to "where channel conditions are determined", and thus, Bruckman fails to teach or suggest a "first data transmission rate different from and based on a data rate indicated in a first rate indication message from a receiver," as set forth in claim 1, for example. The Examiner relies on AAPA for allegedly teaching this limitation.

On page 5 of the outstanding Office Action, the Examiner submits that AAPA teaches "using measuring channel conditions at the receiver and transmitting either the channel conditions or the desired transmission rate based upon the channel conditions to the transmitter," citing page 1, lines 26-32 of the Applicants' specification. However, Applicants respectfully disagree with the Examiner's conclusion.

Page 1, lines 26-32 of the present specification, at most, arguably discloses a scheduling method for a base station. Namely, the receiver with the most favorable channel conditions (for example, the highest measured signal-to-interference ratio (SIR)) and subsequently the highest associated data rate transmits ahead of receivers with less favorable channel conditions. The receiver measures the SIR for each time slot and calculates a data rate using the measured SIR. The calculated data rate is then reported to the base station. The calculated data rates from multiple receivers are used by the base

station to <u>schedule</u> when data transmission is to occur for a receiver. Accordingly, page 1, lines 26-32 of the specification merely define a scheduling algorithm, and does not disclose at least "a first data transmission rate different from and based on a data rate indicated in a first rate indication message from a receiver," as set forth in claim 1. In contrast, as discussed above, AAPA at most discloses the reporting of a data rate from a receiver to a base station <u>for use in scheduling users for transmission</u>.

On pages 5 and 6 of the outstanding Office Action, the Examiner recognizes that Bruckman and AAPA both fail to teach or suggest a "first data transmission rate is different from and based on a data rate for transmitting the first encoder sub-packet indicated in a first rate indication message from a receiver", as set forth in claim 1, for example, and allegedly relies upon Tiedmann for teaching this limitation.

On page 5 of the outstanding Office Action, the Examiner relies upon column 11, lines 43-64 of Tiedmann for allegedly teaching a "first data transmission rate is different from and based on a data rate for transmitting the first encoder sub-packet indicated in a first rate indication message from a receiver", as set forth in claim 1. More specifically, the Examiner alleges that column 11, lines 43-64 of Tiedmann disclose "the transmitter selection [of] a transmission rate that is difference from and based upon the desired maximum transmission rate of the receiver" (see pages 5 and 6 of the outstanding Office Action). On page 4 of the outstanding Office Action, the Examiner further submits that "Tiedmann's receiver (the remote station 6) transmits a

transmission rate request to the channel scheduler which selects the preferred

transmission rate based upon this request. This [preferred transmission] rate

is at or below the requested transmission rate. In the case that it is below the

requested transmission rate it is both based upon and different from the

requested transmission rate." However, Applicants respectfully disagree with

the Examiners conclusion.

Column 11, lines 44-64, states:

> Remote station 6 can also transmit a <u>requested transmission rate</u> to the cell. The requested transmission rate can be based on the queue size which is indicative of the amount of data to be transmitted, the total transmit power available to remote station 6, the predicted transmit energy-per-bit required for the upcoming scheduling period, and the backoff power of remote station 6. The <u>requested transmission rate represents the maximum transmission rate which remote station 6 can support</u>. This value is derived in detail below.

> Channel scheduler 12 can also recommend a <u>preferred transmission rate</u> based on the amount of data, as measured by the queue size, to be transmitted by the scheduled user at step 222. The preferred transmission rate can also be made a function of the transmit power available to remote station 6, if this information is available to channel scheduler 12. In the exemplary embodiment, the queue size and the transmit power available to remote station 6 are sent from remote station 6 to channel scheduler 12 at the start of each scheduling period. The <u>preferred transmission rate</u> is selected to be at or below <u>the transmission rate required to transmit the data in the queue within the scheduling interval</u>. (emphasis added)

As is clearly stated in the above passage, while the requested

transmission rate arguably represents a maximum transmission rate, which

the remote station can support, the channel scheduler 12 does not select a

transmission rate, which is "at or below the requested transmission rate", as alleged by the Examiner. Instead, the scheduler 12 <u>recommends</u> a preferred transmission rate <u>based on the amount of data, as measured by the queue size, to be transmitted by the scheduled user at step 222</u>, and <u>selects</u> a preferred transmission rate at or below <u>a transmission rate required to transmit the data in the queue within the scheduling interval</u>. Thus, contrary to the Examiner's allegation on page 4 of the Outstanding Office Action, the channel scheduler does <u>not</u> select a "preferred transmission rate based upon [the transmission rate request]".

Accordingly, Applicants respectfully submit that Tiedmann fails to teach or suggest a "first data transmission rate is different from and based on a data rate for transmitting the first encoder sub-packet indicated in a first rate indication message from a receiver", as set forth in claim 1.

For at least the reasons set forth above, Applicants respectfully submit that even assuming Bruckman, Applicants Admitted Prior Art, and Tiedmann could be combined (which Applicants do not admit for at least the reasons set forth below), the alleged combination would still fail to teach or suggest all of the limitations set forth in claim 1.

With regard to claims 2-14, 16 and 17, Applicants submit that these dependent claims are also allowable for at least the reasons set forth above with regard to independent claim 1.

With regard to claims 18 and 21, Applicants respectfully submit that these independent claims are also allowable for at least one reason somewhat similar to that which is set forth above with respect to claim 1.

With regard to claims 19, 20, 22, and 23, Applicants submit that these dependent claims are also allowable for at least the reasons set forth above with regard to independent claims 18 and 21.

Lack of Motivation to Combine Reference Teachings

In attempting to combine the teachings of Bruckman and Tiedmann, the Examiner submits that it would have been obvious to combine the references in order to "take into account factors such as power requirements and other transmitters", citing column 11, lines 43-64 of Tiedmann (see page 6 of the outstanding Office Action).

However, Applicants strongly disagree with the Examiner's conclusion. This reasoning by the Examiner is a classic "could have" combined argument. The test for obviousness, however, is "would have." The Examiner has provided no reason as to why one of ordinary skill in the art would have combined the teachings of Bruckman and Tiedmann other than the cited portion of Tiedmann, which Applicants submit is not motivation. Instead, the cited portion of Tiedmann merely discusses factors taken into account when determining a data transmission in the system as disclosed by Tiedmann, and not why one of ordinary skill in the art would have been motivated to use the factors in the system as disclosed by Bruckman.

Accordingly, Applicants submit that the Examiner has not supplied evidence of the necessary motivation needed to lead one of ordinary skill in the art to combine the teachings of Bruckman and Tiedmann as set forth in two cases decided by the Court of Appeals for the Federal Circuit (CAFC), In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir. 1999) and In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed.Cir. 2000). Instead, it appears that the Examiner has made use of impermissible hindsight reconstruction. It appears the Examiner has used the present application as a blueprint, and then alleged that Bruckman could be combined with Tiedmann to provide the missing elements without identifying or discussing any specific evidence of motivation to combine.

As such, a *prima facie* case of obviousness has not been properly established.

Furthermore, Applicants submit that the Examiner's alleged combination of Bruckman and AAPA is also improper for at least reasons somewhat similar to those set forth above.

Accordingly, Applicants respectfully request withdrawal of the above rejections.

Claim Rejections under 35 U.S.C. §103(a)

Claims 6-13 stand rejected under 35 U.S.C. §103(a) as allegedly being anticipated by Bruckman, AAPA, Tiedmann, and further in view of Buchholz (U.S. Patent No. 5,337,313). Applicants respectfully traverse this rejection.

As discussed above, Applicants respectfully assert that Bruckman in view of AAPA and/or Tiedmann fails to teach or suggest all of the limitations as set forth in claims 1, 18, or 21. Buchholz has been relied upon by the Examiner for allegedly teaching limitations set forth in claims 6, 7, 10, and 11. However, Applicants respectfully assert that even assuming *arguendo* that Bruckman, AAPA, or Tiedmann could be combined with Buchholz (which Applicants do not admit for at least the reasons somewhat similar to those set forth above), Buchholz would still fail to make up for at least the deficiencies of Bruckman, AAPA, and Tiedmann with respect to claim 1.

Accordingly, Applicants respectfully request that the above rejection be withdrawn.

Furthermore, with regard to claims 8 and 12, the Examiner acknowledges the Bruckman does not teach or suggest modulating data, and has taken Official Notice "that modulating data to transmit data is well-known" (see page 7 of the outstanding Office Action). Furthermore, the Examiner submits that it would have been obvious to "modulate the data because this would have allowed for the use of standard modems which have the advantage of having good resistance to noise on the wire" (see page 7 of the outstanding Office Action).

However, similar to that as discussed above Applicants respectfully submit that the Examiner has failed to provide the necessary motivation for incorporating what the Examiner considers "well-known" into the system as disclosed by Bruckman. Furthermore, the mere fact that the modulation of

data is a well-known technique, and Bruckman chose <u>not</u> to modulate the data, is reason enough why the skilled artisan would not be motivated to "modulate the data" in the system disclosed by Bruckman.

Accordingly, Applicants respectfully request withdrawal of all of the above rejections.

NEW CLAIM

Applicants have added new claim 24 by the present Amendment, which is also believed to be patentable over the prior art. Although somewhat similar arguments to those emphasized above with regard to claims 1-23 may apply, claim 24 should be governed solely by the limitations present therein and should not be limited in any way by limitations or arguments set forth in other independent claims. Accordingly, allowance of new claim 24 is respectfully requested.

CONCLUSION

In view of above remarks, reconsideration of the outstanding rejection and allowance of the pending claims is respectfully requested.
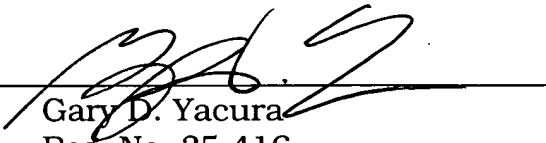
If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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